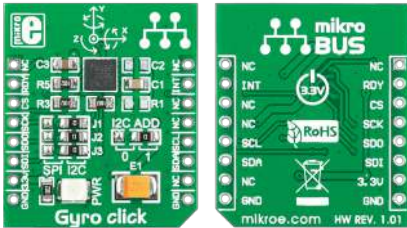


## Gyro click™

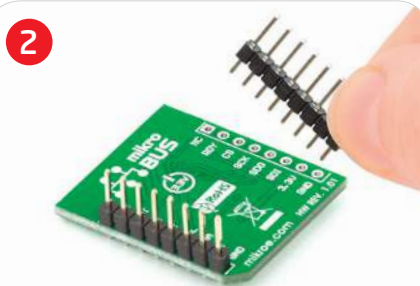
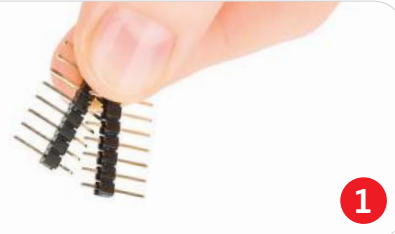
### 1. Introduction



Gyro Click™ is an accessory board in **mikroBUS™** form factor. It's a compact and easy solution for adding gyroscope to your design. It features **L3GD20** three-axis digital gyroscope module. Gyro Click™ communicates with the target board microcontroller via **mikroBUS™** SPI (MOSI, MISO, SCK, CS), I<sup>2</sup>C (SDA, SCL), INT and RST lines. The board is designed to use 3.3V power supply only. LED diode (GREEN) indicates the presence of power supply.

### 2. Soldering the headers

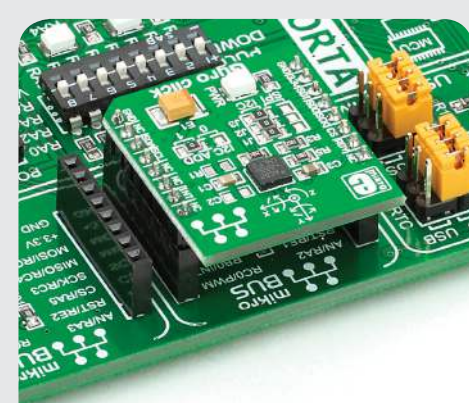
Before using your click board™, make sure to solder 1x8 male headers to both left and right side of the board. Two 1x8 male headers are included with the board in the package.



Turn the board upside down so that bottom side is facing you upwards. Place shorter parts of the header pins in both soldering pad locations.



Turn the board upward again. Make sure to align the headers so that they are perpendicular to the board, then solder the pins carefully.



### 4. Essential features

Gyro Click™ with its **L3GD20** IC is capable of providing the measured angular rate to the external world through a digital interface (I<sup>2</sup>C, SPI). The **L3GD20** has a full scale of  $\pm 250 / \pm 500 / \pm 2000$  dps and is capable of measuring rates with a user-selectable bandwidth. All these features make this board ideal for gaming and virtual reality input devices, motion control, GPS navigation systems and more.

### 3. Plugging the board in



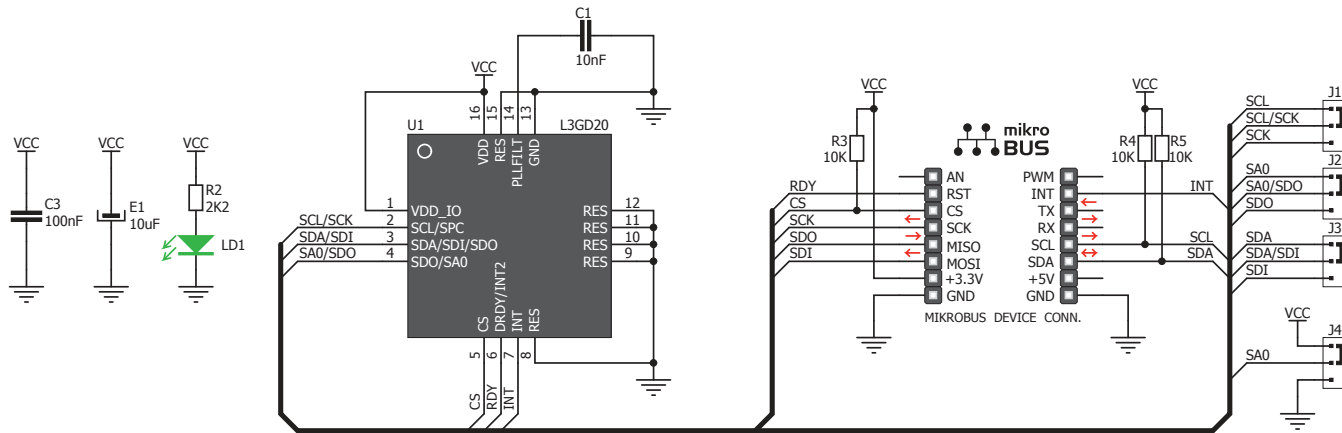
Once you have soldered the headers your board is ready to be placed into desired mikroBUS™ socket. Make sure to align the cut in the lower-right part of the board with the markings on the silkscreen at the mikroBUS™ socket. If all of the pins are aligned correctly, push the board all the way into the socket.

click™  
BOARD  
[www.mikroe.com](http://www.mikroe.com)

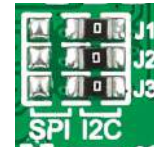
Gyro click Manual  
ver. 1.01



## 5. Gyro Click™ Board Schematic



## 6. SMD Jumpers



The Gyro Click™ board communicates with the main board microcontroller via I<sup>2</sup>C or SPI interface depending on the position of the **J1**, **J2** and **J3** SMD jumpers. These jumpers are soldered in I<sup>2</sup>C interface position by default. There is an option to select the alternate address with jumper **J4** in the case of I<sup>2</sup>C interface (default position is logic 1).

## 7. Code Examples

Once you have done all the necessary preparations, it's time to get your click board up and running. We have provided the examples for mikroC, mikroBasic and mikroPascal compilers on our **Libstock** website. Just download them and you are ready to start.



## 8. Support

MikroElektronika offers **Free Tech Support** ([www.mikroe.com/esupport](http://www.mikroe.com/esupport)) until the end of product lifetime, so if something goes wrong, we are ready and willing to help!